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AMSAT NEWS SERVICE
ANS-126

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-126.01
Eagle Prototype UHF Receiver Powered Up, Testing Commences

AMSAT News Service Bulletin 126.01
>From AMSAT HQ SILVER SPRING, MD.
May 6, 2007
To All RADIO AMATEURS
BID: $ANS-126.01

Jim Sanford, WB4GCS, Eagle Project Manager, has good news this week. Jim reported the completion of construction of the first prototype of the Eagle 70cm Uplink Receiver. The receiver has been powered up with testing and evaluation starting on May 5.

The receiver was designed by John Stephensen, KD6OZH. Juan Rivera, WA6HTP and the Project Oscar Team implemented the design and produced the first prototype. Juan and John have provided extensive documentation

on the receiver design and construction which is available on AMSAT's EaglePedia. See:
http://www.amsat.org/amsat-new/eagle/EaglePedia/index.php/U-Band_Receiver

Support for the CAN-Do! command bus interface was provided by Stephen, KC0FTQ. For more information check out EaglePedia:
http://www.amsat.org/amsat-new/eagle/EaglePedia/index.php/Category:CanDo

John described his receiver design, "This is a key component of the Mode B linear transponder and provides higher dynamic range than Phase 3 satellite receivers. Our 70 cm band is shared and this mini-mizes interference from the military radiolocation service and provides improved performance for users in the amateur radio service".

Juan wrote, "Look for more details on my blogs on EaglePedia over the weekend. My special thanks to everyone who made this possible. It was

a team effort from beginning to end."

Jim concluded, "I wish to express my thanks and gratitude to the entire team for reaching this significant Eagle milestone!"

[ANS thanks Jim, WB4GCS for the above information]

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SB SAT @ AMSAT $ANS-126.02
AO-51 Schedule Change to Accomodate New Software Testing

AMSAT News Service Bulletin 126.02
>From AMSAT HQ SILVER SPRING, MD.
May 6, 2007
To All RADIO AMATEURS
BID: $ANS-126.02

AMSAT Vice President of Operations, Drew Glasbrenner, KO4MA, previously announced the on-going software upgrade and ensuing testing efforts for AO-51.

During the last round of testing and upgrades on AO-51, the Command Team discovered a problem with the BBS receiver interfering with the command system with either UHF transmitter above a certain power level. This problem had gone unsolved since launch until the relationship to the receiver was found. The good news is the problem goes away when that receiver is shut off.

The bad news is that particular receiver is the only user receiver the operating system allows to access the BBS. A rewrite of the core operating software is required to work around this issue, and there is exactly one person who can do this. For the mean time AO-51 will primarily be an analog mode satellite, until the fix is coded and tested thoroughly on the ground.

Testing aboard the satellite has started. Gould, WA4SXM, AO-51 Operations Group and Command station has updated the May 2007 AO-51 (AMSAT Echo) Schedule. Gould wrote, "We will be testing automatic mode switching on AO-51 for 2 days each week on Wed & Thur this month, except

for Dayton week. The rest of the time AO-51 will be in 'normal' mode."

The first mode switch already occured on an early US east coast pass on 2 May 2007. The AO-51 schedule for May on the AMSAT web site has been updated: http://www.amsat.org/amsat-new/echo/ControlTeam.php

Enjoy these modes and send comments and requests to the AO-51 Operations

Group at ao51-modes@amsat.org.

AO-51 May 2007 AO-51 (AMSAT Echo) Schedule
May 1 until May 31, subject to modification

Normal mode except for 2 days testing on Wed - Fri.
Testing of the automatic scheduler

2 - 4 May 2007, 9 - 11 May & 23 -25 May, no change during Dayton week,
to be defined mode change the last week of the month.

2 May - 4 May Mode 7 Testing

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  FM Repeater, V/U
  Uplink:   145.920 MHz FM, NO PL Tone
  Downlink: 435.300 MHz FM

  QRP FM Repeater, V/U
  Uplink:   145.880 MHz FM, NO PL Tone
  Downlink: 435.150 MHz FM

9 May - 11 May Mode 4 Testing  (Field Day configuration)

  FM Repeater, V/U
  Uplink:   145.920 MHz FM, NO PL Tone
  Downlink: 435.300 MHz FM

  FM Repeater, L/U
  Uplink:   1268.700 MHz FM, NO PL Tone
  Downlink:  435.150 MHz FM

23 May - 25 May Mode 2 Testing

  FM Repeater, V/S
  Uplink:    145.880 MHz FM, NO PL Tone
  Downlink: 2401.200 MHz FM

Normal Mode
FM Repeater, V/U
Uplink:   145.920 MHz FM, NO PL Tone
Downlink: 435.300 MHz FM
9k6 Digital, V/U, Telemetry Only
Downlink: 435.150 Mhz FM, 9k6 Telemetry

[ANS thanks Gould, WA4SXM for the above information]

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SB SAT @ AMSAT $ANS-126.03
Reminder of the Dayton AMSAT/TAPR Banquet at Dayton

AMSAT News Service Bulletin 126.03
>From AMSAT HQ SILVER SPRING, MD.
May 6, 2007
To All RADIO AMATEURS
BID: $ANS-126.03

AMSAT will have a large presence at the Dayton Hamvention this year,
so come to Dayton and involve yourself in the many AMSAT activities.

Plan on attending the Thursday night Pizza and Suds party at Marion's.

The AMSAT Forum Friday 11-2 has an outstanding list of speakers and
topics of interest to all AMSAT members.

Visit the outdoor satellite demonstration area to observe and make
satellite contacts.

We will have a large number of new items at the AMSAT booth, as well
as information and a chance to meet and talk with AMSAT Officers and
BOD members.

Just a reminder that there are only two weeks left to purchase your
tickets to the Dayton AMSAT/TAPR Banquet Friday, May 18,2007.

The "Under the Wings" Banquet will be held in the Air Force Museum.
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Ticket reservations can be made online at the AMSAT Store, follow the link from the front page of the amsat.org web site.

Reserved tickets will be available for pickup at the AMSAT booth (#444-448) all day Friday, and at the Museum. Reserved tickets can only be purchased until end of business Monday, May 14, 2007 (two weeks from today). We must give the museum a final count on Tuesday morning.

There will be no ticket sales at either the AMSAT or TAPR booth Friday, this is different than past years.

Get online and make your reservations now for a great meal, great ambiance and great kinship.

Don't be left out of THE Friday night event. See the AMSAT web site for additional information.

See you at Dayton May 18-20, 2007.

[ANS thanks Gould, WA4SXM for the above information]

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SB SAT @ AMSAT $ANS-126.04
FO-29 Telemetry Data Needed

AMSAT News Service Bulletin 126.04
>From AMSAT HQ SILVER SPRING, MD.
May 6, 2007
To All RADIO AMATEURS
BID: $ANS-126.04

The Fuji-Oscar 29 (FO-29) satellite has not been heard for several days. Below is a translation of the JARL FO-29 note from their webpage at: http://www.jarl.or.jp

"The analog repeater of amateur satellite 'Fuji 3' ceased operation. We request your help in gathering information during the investigation of the cause and restoration of the satellite if possible."

The amateur satellite 'Fuji of JARL 3' (FO-29 and 8J1JCS), used the regular analog system continuously, but it was verified that the analog repeater has stopped after April 21.

Presently, the control bureau is directing an investigation of the cause, collecting information of what happened before the repeater stops. If you collected and/or analyze telemetry, it can help with the future restoration and planning of the command station. We ask you to help us by providing the following information regarding FO-29 to the JARL technical section.

1. After April 20th: CW telemetry data
2. After April 20th: Repeater operational details/observations (CW telemetry for the repeater including those times when it was operational or not operational)
3. If there are phenomenon which you believe relevant, such as signal strength and reception circumstance please send.

On May 3, the JARL command station could command the analog transponder off and on. On May 4 when the analog transponder was turned on the power
balance during eclipse was severely negative. An attempt at

recondition-
ing the batteries may be successful if the power budget is carefully
man-
aged. JARL reported that FO-29 needs to be turned off for a while.

Although it is possible for the command station to temporarily turn on
the satellite over Japan, users are requested to refrain from attempting
to access the analog transponder. Any telemetry data received is wel-
comed.

[ANS thanks JARL and Mineo, JE9PEL for the above information]

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SB SAT @ AMSAT $ANS-126.05
Space Shorts From All Over

AMSAT News Service Bulletin 126.05
>From AMSAT HQ SILVER SPRING, MD.
May 6, 2007
To All RADIO AMATEURS
BID: $ANS-126.05

+ John, KD6PAG will be on Santa Catalina Island (IOTA NA-066,
  near Los Angeles) from Friday afternoon 4 May through Tuesday
  mid-morning 8 May. Plans include working J-FM satellites as
  time (and horizons) permit. Monday is the best time to try
  if you can only fit in one or two passes. John also said he
  plans to activate CM86 (Santa Cruz) again on the first Sat-
  urday in June and he is still considering CM79, probably on
  June 23 or 24.

+ Mineo, JE9PEL posted information provided by DK3WN on "How
  to decode CP4 telemetry" on-line at:
  http://www.ne.jp/asahi/hamradio/je9pel/cp4deco0.htm

+ NASA announced pioneering astronaut Walter "Wally" Schirra, the
  only man who flew in all three of America's first human space
  projects - Mercury, Gemini and Apollo - died Wednesday night.
  He was 84. Schirra's family reported he died of natural causes.

+ Nate, WY0X sent the word that Ted Cross, N0IAK, passed away early
  in the week of April 16th due to complications arising from a
  seizure. Ted was 46 years old. Ted was from England and was
  dual-licensed. His other Amateur callsign was G0HHY. Ted was
  involved in AMSAT projects over the years.

+ Greg, WA7IRW will be operating at the British Virgin Islands
  as VP2V/WA7IRW starting 5 May and ending 18 May. He expects to
  try AO-51 ops typically in the afternoon / evening hours passes
  as they will be sailing in the morning hours. He will be using a
  FT857 and an aArrow antenna from the sail boat. QSL to WA7IRW.

+ Rolf, DK2ZF will be on the Azores as CU2/DK2ZF over the weekend
  of May 25th to May 29th from Sao Miguel HM77UC. Station will
  constist of FT-847 with 5 element uplink and 9 element downlink
  antennas.

+ Pop, VU2POP, Secretary of AMSAT India reminds radio amateurs world-
  wide to wish HAMSAT a very Happy 2nd birthday and a very long life.

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-126.06
AMSAT Awards

AMSAT News Service Bulletin 126.06
>From AMSAT HQ SILVER SPRING, MD.
May 6, 2007
To All RADIO AMATEURS
BID: $ANS-126.06

Bruce, KK5DO, AMSAT Director Contests and Awards says the awards this week are:

We would like to welcome the following to the satellite community. They have made their first satellite contact and are now members of the AMSAT Satellite Communicators Club:
   Joaquim das Virgens Neto, PS7JN

AMSAT Communication Achievement Award
   Joe Prokop, KC8RAN, #449
   Joaquim das Virgens Neto, PS7JN, #450
   Steve Raas, N2JDQ, #451

South Africa AMSAT Communication Achievement Award
   Joe Prokop, KC8RAN, #US108

To see all the awards visit http://www.amsat.org.

[ANS thanks Bruce, KK5DO for the above information]

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SB SAT @ AMSAT $ANS-126.07
ARISS Status Report for the Week of April 30, 2007

AMSAT News Service Bulletin 126.07
>From AMSAT HQ SILVER SPRING, MD.
May 6, 2007
To All RADIO AMATEURS
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1. ARISS ï¿½ Scuola Europea Varese Contact Successful

Scuola Europea Varese in Varese, Lombardia, Italy experienced an ARISS contact on Monday, April 23 via the telebridge station VK4KHZ in Australia. Sixteen students posed one question each to astronaut Sunita Williams, KD5PLB, in front of an audience of 300. Three newspapers, Corriere Della Sera, Varese News and Prealpina, and two television stations, Rete 55 and Tele 7 Laghi, covered the event.

2. Kingston School Contact Successful

On Monday, April 23, students attending Kingston Elementary School in Virginia Beach, Virginia spoke with Sunita Williams, KD5PLB, via the ARISS program. Thirteen children asked 16 questions of the astronaut. Media coverage included a newspaper and television station. The Virginia Pilot article may be viewed on: http://content.hamptonroads.com/story.cfm?story3431&ran6848

3. Illinois School Contact, a Success

An ARISS contact took place between Christian Life Elementary School
in Rockford, Illinois and Sunita Williams, KD5PLB, on Wednesday,
April 25. Williams answered eleven questions posed to her by 11 children

as 1200 students, teachers and parents observed from the audience. One
radio station provided streaming audio. Three television stations and
one newspaper reported the event. One of the teachers who witnessed
the event remarked, ï¿½What an awesome event! What an unforgettable
experience! It will be something that will enrich our childrenï¿½s
lives for years to come.ï¿½

WIFR, Channel 23, ran an article with video of the contact.
See: http://www.wifr.com/news/headlines/7192966.html

WREX-TV, Channel 13, ran this story:
http://www.wrex.com/News/index.php?ID472

4. Germany Contacts Successful

On Saturday, April 28, students attending the Samuel-von-Pufendorf
Gymnasium in Floeha, Germany participated in an ARISS contact. Sunita
Williams, KD5PLB, answered 18 questions posed to her by five students,
who were all licensed amateur radio operators. Fifty people were in
attendance. One television station (MDR), three radio stations and
five newspapers covered the event.

Erweiterte Realschule Weiskirchen in Weiskirchen, Saarland, Germany
had an ARISS contact on Saturday, May 5. The school is one of eleven
pilot schools participating in the ï¿½Innovative all-day schoolï¿½
project.
A radio club was formed at the school. Students participating in the
contact are responsible for all aspects of the event: obtaining and
working with sponsors, catering, press, documentation and technology.

5. Italian Contact Successful

Liceo Scientifico Statale ï¿½Lorenzo Respighiï¿½ in Piacenza, Italy had
an ARISS contact on Saturday, May 5. The school plans to incorporate
this contact in their curriculum through studies including the law of
gravitation, experiments in the absence of gravity, the International
Space Station, and English. Italian Astronaut Roberto Vittori has also
been invited to visit the school in conjunction with these lessons.
Students were required to work on interview skills, write reports and
design posters. Media coverage included television, radio, newspapers
and website postings.

6. Upcoming School Contacts

Sunset Mesa School, a private school with an enrollment of 400 students,

located in Albuquerque, New Mexico, has been scheduled for an ARISS
contact
on Wednesday, May 9 at 14:39 UTC. The contact will be integrated into
the following areas of the schoolï¿½s curriculum: science, social
studies,
technology, and language arts. Fifth grade students will study the
earthï¿½s
atmosphere, radio waves, history of the ISS and the cultures of the
countries supporting it. They will use the internet for their research
and will practice interviewing skills to prepare for the event. The
fifth
graders will share what they have learned with the rest of the school.

Escola Secundï¿½ria de Estarreja in Portugal has been scheduled for an

ARISS
contact on Wednesday, May 9 at 14:58 UTC. The school has an enrollment
of
2000 students with its own amateur radio station, CT6ESE. Each year the
Technology Department offers a week of amateur radio activities
including
lectures, practical applications, and lessons for those interested in
taking their ham radio license exam. The Portuguese television networks
as well as the local media have been invited to cover the event. The
contact has the support of the local government and is being organized
by REP (The National Ham-Radio Association) and the Central Portugal
Ministry of Education branch.

7. ARISS at Dayton Hamvention

The Dayton Hamvention will be held at the Hara Arena Complex in Dayton,
Ohio on May 18 - 20. The American Radio Relay League (ARRL) and the
Radio
Amateur Satellite Corporation (AMSAT) will both support exhibit booths
at the event. ARISS will be well represented over this weekend.

+ ARISS Chairman Frank Bauer plans to give a presentation on ï¿½ARISS
  and Future SuitSat Missionsï¿½ at the AMSAT forum.

+ Dr. Barry Cohen, K2JV, will speak at the Teachersï¿½ Workshop on
  ï¿½Events Leading up to the ARISS QSO (Contact) at School.ï¿½

+ NASA Astronaut Bill McArthur, KC5ACR will offer a presentation on
  his ARISS contacts during Expedition 12.

+ ARISS Hardware Manager Lou McFadin will speak on SSTV, ï¿½SuitSat 2,
  Not the Same Suit.ï¿½

+ ARISS Delegate Rosalie White plans to speak on SuitSat-2 and related
  lesson plans.

The Dayton Hamvention is an internationally attended amateur radio
convention that draws crowds of 25,000 annually.

8. University School Contact Update

Students from University School in Shaker Heights, Ohio took part in an
ARISS contact with astronaut Sunita Williams, KD5PLB, on March 16. The
school has posted photos, audio and video of the event on its website.
See: http://www.shaker.us.edu/ariss/

9. ARRL Article on ARISS Status

The American Radio Relay League (ARRL) ran a web story on the ARISS
hardware status. See:
http://www.arrl.org/news/stories/2007/04/25/101/?nc=1

10. ARRL Article on ISS Crew Change

The American Radio Relay League (ARRL) ran an article on the upcoming
crew change. Flight Engineer Sunita Williams, KD5PLB, will be replaced
by Clay Anderson, KD5PLA. Anderson will fly on STS-117, slated to launch

on June 8. See: http://www.arrl.org/?artidt12

[ANS thanks Carol, KB3LKI for the above information]

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In addition to regular membership, AMSAT offers membership in the
President's Club. Members of the President's Club, as sustaining donors
to AMSAT Project Funds, will be eligible to receive additional benefits.
Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM

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ADDITIONAL COMPONENT BULLETINS RECOVERED FROM OTHER POSTS
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SB SAT @ AMSAT $ANS-126.08
2007 AMSAT Space Symposium and Annual Meeting - Call for papers

AMSAT News Service Bulletin 126.08
>From AMSAT HQ SILVER SPRING, MD.
May 6, 2007
To All RADIO AMATEURS
BID: $ANS-126.08

This is the first call for papers for the 2007 AMSAT Space Symposium
and Annual Meeting to be held October 25-28, 2007 in Pittsburgh,
Pennsylvania.

Proposals for papers, symposium presentations, and poster presentations
Are invited on any topic of interest to the amateur satellite program.
An emphasis for this year is an educational outreach to middle and high
School students. In particular, papers on the following topics are
solicited:

 + Students & Education
 + ARISS
 + AO-51
 + P3E
 + Eagle
 + Other satellite-related topics.

We request a one-page abstract by June 1, 2007. Camera ready copy
on paper or in electronic form will be due by September 1, 2007
for inclusion in the printed symposium proceedings. Papers received
after this date will not be included in the printed proceedings.

Abstracts and papers should be sent to:
Daniel Schultz N8FGV by e-mail to: n8fgv@amsat.org.

[ANS thanks the AMSAT 2007 Symposium Committee for the above information]

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